

Hydrogen Sweden's Strategy to Facilitate Regional Involvement in Hydrogen

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1 Introduction to Hydrogen Sweden

With a mission to facilitate the introduction of hydrogen as an energy carrier in Sweden, the non-profit Public-Private Partnership (PPP) of Hydrogen Sweden is applying an approach based on collaboration. Industry, universities, NGO's and local, regional and national government, are coming together to accelerate technology development and facilitate the evolution of early markets.

Inspired by the scientific theories of Innovation Systems, Hydrogen Sweden is designed as a Bridging Institution, acting as a coordinator and initiator that increase knowledge and motivation among different stakeholders. It is characterized by a balanced and pragmatic approach to hydrogen as an energy carrier, applying a long term perspective. Value is added through information activities, networking events, market and technology surveys, pre-studies and demonstration projects. Examples from the portfolio of co-operating hydrogen projects cover stationary, portable and transport applications. Hydrogen Sweden is also the Swedish coordinator in the Scandinavian Hydrogen Highway Partnership. The growing number of partners in Hydrogen Sweden recently passed 30 organisations, served by a hands-on secretariat of five employees.

2 Purpose

The serious challenge of reducing humanity's dependence on fossil fuels must be addressed with a range of activities. Among these, the research, development, demonstration and commercial introduction of new energy technologies is likely to play an important role. Hydrogen and Fuel Cell technologies are today considered to be one of the most promising new energy technologies, allowing for a more sustainable energy system with greater flexibility.

Hydrogen Sweden's purpose is to facilitate the introduction of hydrogen as an energy carrier in Sweden. The aim is to contribute to:

- Increased knowledge and awareness about the potential of hydrogen as an energy carrier
- More practical applications and demonstrations of hydrogen and fuel cell technologies
- Involving more actors with interests in the hydrogen area.
- Hydrogen being included to a larger extent in political strategies, regulations and legal framework as well as in research programmes.
- Economical growth and more working opportunities in the trade and industry related to hydrogen

3 Organisation

The Public-Private Partnership of Hydrogen Sweden is set up as a not for profit association with members among companies, public organizations or other associations. The members elect a Board for one year during the annual General Assembly. The Board members come from different parts of society, capturing different perspectives relevant to the introduction and promotion of hydrogen as an energy carrier in Sweden.

The operational part is the Secretariat and its Managing Director reports to the Board. Since the start, the Secretariat has grown from three to four and a half people. The team consists of the Managing Director, a Project Coordinator, a Senior Analyst, a Communications Manager and an Office Assistant.

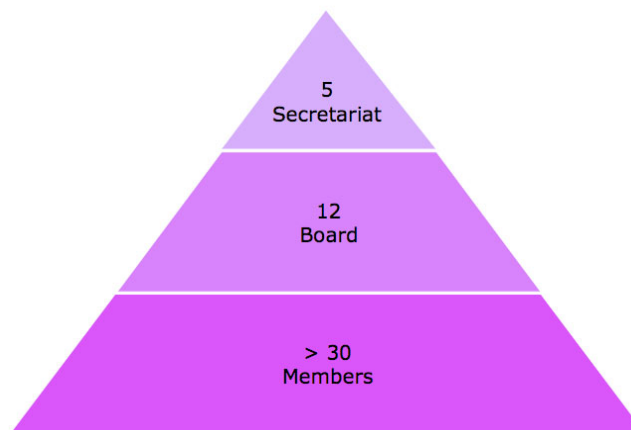


Figure 1: Organisation of Hydrogen Sweden.

4 Partnerships

Hydrogen Sweden is member of the following partnerships and organisations:

- European Hydrogen Association
- Scandinavian Hydrogen Highway Partnership

5 Approach

Hydrogen Sweden is applying an approach based on collaboration where industry, universities, NGO's and local, regional and national government, are coming together to accelerate technology development and facilitate the evolution of early markets. The activities are characterized by a balanced and pragmatic view of hydrogen as an energy carrier, applying a long term perspective. Synergies between hydrogen and other energy technologies are actively sought with the view to demonstrate and evaluate these synergies in practice.

6 Hydrogen Sweden Support to Swedish Regional and Community Actors

One major activity of Hydrogen Sweden is to support Swedish regional and community actors looking to set up successful hydrogen projects and networks.

Collaboration between regions and communities across Sweden and Europe is crucial as it dramatically can improve the cost effectiveness of the development process as well as increase its speed. In a European context, the European Regions' and Municipalities' Partnership on Hydrogen and Fuel Cells (HyRaMP), was launched in 2008. The question is now how regions and communities can act to get maximum value out of these engagements and how this may spear head the growth of the early markets for hydrogen and fuel cells.

Hydrogen Sweden's strategy to address the above mentioned issues and to facilitate the involvement and support of regional leaders and organizations will be explained in the presentation.

Examples from the regions of Västra Götaland and Skåne will be presented.

7 Quick Facts about Västra Götaland

At the western parts of Sweden lies the region of Västra Götaland.

- 1 .5 million inhabitants.
- 49 municipalities.
- 3 00 km long and 250 km wide.
- The largest city is Göteborg.
- The region has the largest port in Scandinavia.
- Sweden's leading region for industry and transportation

8 Quick Facts about Skåne

At the southernmost tip of Sweden lies Skåne. It is province, a county and a region. As a province it borders on its peers Halland, Småland and Blekinge, as well as Denmark, Germany, Poland and the Baltic States – albeit with some water between.

- million inhabitants.
- The largest city is Malmö.
- The largest private companies in Skåne are Posten AB, Tetra Laval and Skanska AB respectively.

Hydrogen and Fuel Cells news from the these regions will be summarized and also some examples of regional companies will be presented.

9 Conclusions and Learnings

Hydrogen Sweden's learnings how to involve regional actors are:

- Regional political support is important.
- The most powerful and quick way to gain acceptance has proven to be to establish collaboration with some of the big, well-known companies or authorities.
- Understanding regional companies concerns and drivers and how that relates to your own organization.
- By providing decision makers with information on what is going on in other companies, regions, or countries, in a way that gets them feeling that they are actually missing out on something important has proven efficient to increase their

motivation. Especially important is to inform about activities from countries close to region such as Norway and Denmark.

- To have a regional ambassadors that like what you are doing and then make sure they get the tools to help you.
- Seeking synergies with other regional supported technologies such as battery electric vehicles and biogas .